MHT423

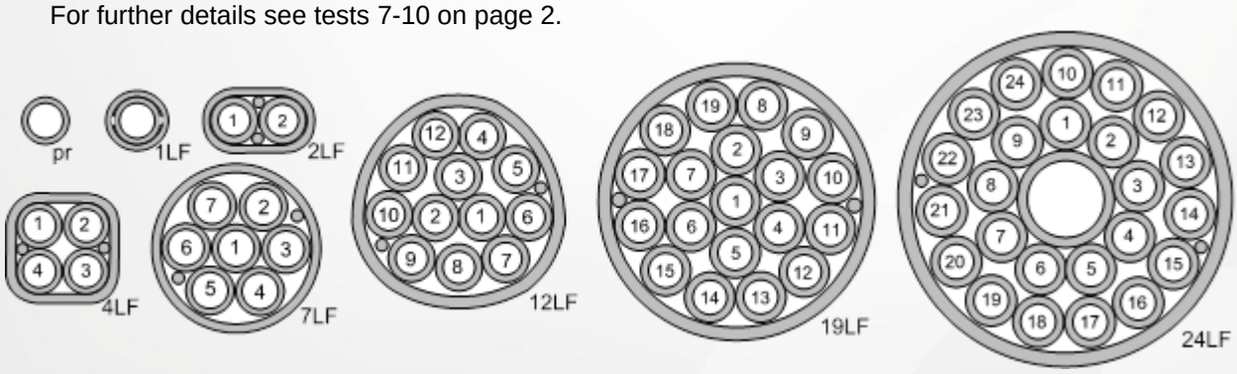
Issue O 8th Jan 2020

FibreFlow

Low Fire Hazard bundles

CE EN61386-22 – 1, 2, 2, 0

Conduits from single to 19-way have limited levels of heat release, smoke and acid gas evolution and their reaction to fire performance should allow for their installation in combination with cables of **Euroclass C_{ca}, s1a, d2, a1** in accordance with EN13501-6 without degrading the overall reaction to fire performance of the overall infrastructure.
For further details see tests 7-10 on page 2.



Product Description

Assemblies of LFH microducts (m/d) as specification MHT 381 (5/3.5), each with low friction performance for fibre blowing. Each assembly is surrounded with a sheath of LFH material, giving excellent performance in a fire scenario: They are a) Low flammability b) Low smoke c) Low acid/fume d) Halogen-free. These lightweight, metal-free, flexible products are intended for indoor installation, and may be pulled into suitable indoor ducts using low tensions (listed). They are not for direct burial or aerial use.

Appropriate Fibre Types

Any suitable sized Emtelle fibre unit: The 5/3.5mm microduct bundles will accommodate all Fibre Unit counts: 2FU - 24FU.

Generic Details: Microducts (20°C)

Primary m/d outer diameter, nominal	mm	**5.0**
Primary m/d inner diameter, nominal	mm	3.5
Diameter of centre m/d in 24-way, nom	mm	10
Min bend radius of primary m/d**	mm	50
Mass of primary m/d	g/m	15
Max pull force of primary m/d	N	60

NB: ** This radius relates to the microduct capability only and does not indicate a suitable radius for blowing FU.

1. Microduct sizes are compatible with designated connectors
2. Max air pressure for blowing, all microducts: 10bar.
3. Max blowing temperature 40°C
4. Operating temperature (not blowing): -20ºC to +60ºC
5. Storage temperature: -25ºC to +65ºC
6. Storage of bundles and unprotected m/ds: Indoors and well shielded from daylight

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LFH Microducts and Sheath

1. Extruded from 100% virgin compound with these characteristics:
2. Tensile strength 11.5MPa, 102% retention after 7d at 110ºC IEC60811-501
3. Elongation at break 155%, 94% retention after 7 days at 110°C
4. Cold elongation at -25°C minimum 43%
5. No halogen content (chlorine, bromine, fluorine)
6. Oxygen Index (LOI) 40%

Product-Specific Details

		5/3.5 m/ds		
type	OD nom mm	Mass nom g/m	Min Bend Rad mm	Max* Pull force N
1LF	7.2	45	100	150
2LF	7.2/12.2	80	150	250
4LF	12.2/14.3	127	150	400
7LF	17.2	190	220	600
12LF	22.9	310	300	950
19LF	26.9	438	350	1300
24LF	32.5	591	500	1800

* After applying pulling tensions, allow time for the pulled product to relax. See Installation manual.

Microduct and Assembly Testing

Mechanical

1. Crush test: test method IEC 60794-1-2-E3: Procedure to IEC 60794-5
2. Impact test: test method IEC 60794-1-2-E4: Procedure to IEC 60794-5
3. Kink test: test method IEC 60794-1-2-E10: Procedure to IEC 60794-5
4. Flexibility test: test method IEC 60794-1-2-E11: Procedure to IEC 60794-5
5. Tensile test test method IEC 60794-1-2-E1: Procedure to IEC 60794-5
6. EN61386-22 Conduit systems for cable management. Particular requirements. Pliable conduit systems.

Fire

EN50575:2014 : Power, control and communication cables – Cables for general applications in construction works subject to reaction to fire requirements.

7. Heat Release: test method EN 50399
8. Vertical Burn test method IEC 60332-1
9. Corrosive gas Emission test method BS EN 60754-2:2014
10. Smoke Emission test method BS EN 61034-2:2005

EN13501-6:2014 Fire classification of construction products and building elements.

For further details of tests 7-10 see BRE Global reports P104087-1000-

Note 1: Diameters and thicknesses are measured to the nearest 0.1mm.
Note 2: 'nominal' data is based on middle-spec, and is for information only, not for inspection purposes.
Note 3: Sketches are for information purposes only and should not be used for inspection.
Note 4: When interpreting performance data and installing m/ds, bundles, or fibre units, it is assumed that the user has been trained by Emtelle.
Note 5: Users must establish the suitability of these products for their own applications.